STATE OF IOWA DEPARTMENT OF
Health AND Human
SERVICES

Adakveo (crizanlizumab)
IME-PAM-025

Iowa Medicaid Program:	Prior Authorization	**Effective Date:**	01/01/2021
Revision Number:	2	**Last Rev Date:**	07/15/2022
Reviewed By:	Medicaid Medical Director	**Next Rev Date:**	07/21/2023
Approved By:	Medicaid Clinical Advisory Committee	**Approved Date:**	12/23/2020

Overview

Medication:[1]	crizanlizumab-tmca
Brand Name:	Adakveo®
Pharmacologic Category:	Monoclonal Antibody, Anti-P-Selectin.
FDA-Approved Indication(s):	Reduce the frequency of vaso-occlusive crises (VOCs) in adults and pediatric patients aged 16 years and older with sickle cell disease.
How Supplied:	Single-dose vial, 100 mg/10 mL.
Dosage and Administration:	IV infusion: 5 mg/kg at weeks 0 and 2, then every 4 weeks thereafter.
Benefit Category:	Medical

Descriptive Narrative

Sickle cell disease (SCD) affects about 100,000 persons in the United States and primarily affects African Americans, Latinos, and other minorities. It results in a host of acute and chronic complications including vaso-occlusive crisis (VOC) and hemolysis. Persons with this genetic disorder have an average life expectancy of 40 to 60 years.

SCD is a monogenic (single gene) disorder due to a specific variant in the beta globin gene, HBB, which encodes the beta globin chain of hemoglobin (Hb). The sickle cell variant that produces Hb S is a single point mutation that creates an amino acid substitution (valine instead of the normal glutamic acid) at amino acid 7.

SCD is an autosomal recessive trait. For the disease to manifest, there must be homozygosity for Hb S or compound heterozygosity for Hb S and beta thalassemia or a different *HBB* variant that interacts with Hb S.[2]

Guidelines

Guidelines for the management of sickle cell disease are published by the American Society of Hematology (ASH) as four separate guidelines:

1. Guidelines for sickle cell disease: Management of acute and chronic pain (2020).[3]
2. Guidelines for sickle cell disease: Prevention, diagnosis, and treatment of cerebrovascular disease in children and adults (2020).[4]
3. Guidelines for sickle cell disease: transfusion support (2020).[5]
4. Guidelines for sickle cell disease: cardiopulmonary and kidney disease (2019).[6]

Criteria

Prior authorization is required.

Adakveo® is considered medically necessary when **ALL** of the following are met:

1. Diagnosis of sickle cell disease (any genotype); **AND**
2. Member is 16 years of age or older; **AND**
3. The member has experienced two or more vaso-occlusive crises (VOCs) within the previous 12 months prior to initiation of therapy; **AND**
4. One of the two following conditions are met (a or b):
    a. The member is currently receiving and will continue to receive hydroxyurea in conjunction with Adakveo®; **OR**
    b. The member has a documented history of treatment failure, intolerance, or contraindication to hydroxyurea; **AND**
5. Adakveo® will not be used in conjunction with Oxbryta® (voxelotor); **AND**
6. Prescribed by, or in consultation with, a hematologist; **AND**
7. The regimen/dosing prescribed is within the FDA-approved labeling. If dose or schedule exceeds the FDA-approved regimen, regimen (including dosage) must be supported by clinical practice guidelines (supporting clinical documentation must be provided with any request for which the regimen or dosage prescribed does not align with FDA-approved labeling).

Adakveo ® is considered medically necessary for continuation of therapy when **ALL** of the following are met:

1. Member is currently receiving medication through the Iowa Medicaid benefit or has previously met initial approval criteria; **AND**
2. Documentation that member has experienced a positive clinical benefit to treatment with Adakveo® (as evidenced by a reduction in the frequency of vaso-occlusive crises (VOC) from baseline); **AND**
3. Prescribed by, or in consultation with, a hematologist; **AND**
4. If there are any changes made to the dosing or therapy regimen, the new regimen (including dosage) must be within the FDA-approved labeling. or supported by clinical practice guidelines. If new dose or dosing schedule exceeds the FDA-approved regimen, regimen (including dosage) must be supported by clinical practice guidelines (supporting clinical documentation must be provided with any request for which the regimen or dosage prescribed does not align with FDA-approved labeling).

Approval Duration and Quantity Limits

	Initial Authorization	Subsequent Authorization(s)
Approval Duration	12 months	12 months
Quantity Limits	5 mg/kg at weeks 0 and 2, then 5 mg/kg every 4 weeks thereafter	5 mg/kg every 4 weeks

Coding and Product Information

The following list(s) of codes and product information are provided for reference purposes only and may not be all inclusive. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment, nor does the exclusion of a code imply that its association to the HCPCS code is inappropriate.

HCPCS	Description
J0791	Injection, crizanlizumab-tmca, 5 mg.

ICD-10	Description
D57.00-D57.819	Sickle cell disease

NDC	Labeler	Dosage	Pkg Size	Pkg Qty	Units/Pkg
00078-0883-61	Novartis Pharmaceuticals Corp.	5 mg	10	1	20

Compliance

1. Should conflict exist between this policy and applicable statute, the applicable statute shall supersede.
2. Federal and State law, as well as contract language, including definitions and specific contract provisions or exclusions, take precedence over medical policy and must be considered first in determining eligibility for coverage.
3. Medical technology is constantly evolving, and Iowa Medicaid reserves the right to review and update medical policy on an annual or as-needed basis.

Medical necessity guidelines have been developed for determining coverage for member benefits and are published to provide a better understanding of the basis upon which coverage decisions are made. Medical necessity guidelines are developed for selected physician administered medications found to be safe and proven to be effective in a limited, defined population or clinical circumstances. They include concise clinical coverage criteria based on current literature review, consultation with practicing physicians in the service area who are medical experts in the particular field, FDA and other government agency policies, and standards adopted by national accreditation organizations. Criteria are revised and updated annually, or more frequently if new evidence becomes available that suggests needed revisions.

References

[1] Adakveo prescribing information (07/2021). Novartis Pharmaceuticals Corporation: Hanover, NJ. Available online at www.hcp.novartis.com. Accessed July 6, 2022.

[2] Steinberg MH. Pathophysiology of sickle cell disease. Tirnauer JS, ed. UpToDate. Waltham, MA: UpToDate Inc. www.uptodate.com. Accessed July 7, 2022.

[3] Brandow AM, et al. American Society of Hematology 2020 guidelines for sickle cell disease: management of acute and chronic pain. *Blood Adv* 2020; 4 (12): 2656–2701.

[4] DeBaun MR, et al. American Society of Hematology 2020 guidelines for sickle cell disease: prevention, diagnosis, and treatment of cerebrovascular disease in children and adults. *Blood Adv* 2020; 4 (8): 1554-1588.

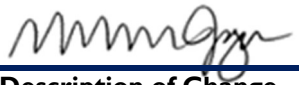
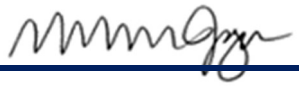
[5] Chou ST, et al. American Society of Hematology 2020 guidelines for sickle cell disease: transfusion support. *Blood Adv* 2020; 4(2): 327-255.

[6] Liem RI, et al. American Society of Hematology 2019 guidelines for sickle cell disease: cardiopulmonary and kidney disease. *Blood Adv* 2019; 3(23): 3867-3897.

Development of utilization management criteria may also involve research into other state Medicaid programs, other payer policies, consultation with experts and review by the Medicaid Clinical Advisory Committee (CAC). These sources may not be referenced individually unless they are specifically published and are otherwise applicable to the criteria at issue.

Criteria Change History

Change Date	Changed By	Description of Change	Version
Signature			

Change Date	Changed By	Description of Change	Version
07/15/2022	CAC	Added overview of sickle cell genetics to Descriptive Narrative. Added criteria language "The regimen/dosing prescribed is within the FDA-approved labeling." Added dosing information to Approval Duration/Quantity Limits section. Initial authorization duration changed from every 6 months to every 12 months. Format updated.	2
Signature William (Bill) Jagiello, DO			
Change Date	**Changed By**	**Description of Change**	**Version**
07/16/2021	CAC	Criteria implementation.	1
Signature William (Bill) Jagiello, DO			

CAC = Medicaid Clinical Advisory Committee